REMARKS

By the present response, Applicant has canceled claims 9 and 14 without disclaimer. Further, Applicant has amended claims 1, 10, 16 and 22 to further clarify the invention. Claims 1-8, 10-13 and 15-24 remain pending in the present application.

In the Office Action, claim 22 has been objected to for informalities. Claims 1-24 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Benveniste.

Claim Objections

Claim 22 has been objected to for informalities. Applicant has amended this claim to further clarify the invention and respectfully request that this objection be withdrawn.

35 U.S.C. §102 Rejections

Claims 1-24 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Benveniste. Applicant respectfully traverses these rejections.

Benveniste discloses Quality of Service (QoS) support being provided by means of a Tiered Contention Multiple Access (TCMA) distributed medium access protocol that schedules transmission of different types of traffic based on their service quality specifications. A wireless station is supplied with data from a source having a lower QoS priority QoS(A), such as file transfer data. Another wireless station is supplied with data from a source having a higher QoS priority QoS(B), such as voice and video data. Each wireless station can determine the urgency class of its pending packets according to a scheduling algorithm. For example file transfer data is

assigned lower urgency class and voice and video data is assigned higher urgency class. There are several urgency classes which indicate the desired ordering. Pending packets in a given urgency class are transmitted before transmitting packets of a lower urgency class by relying on class-differentiated urgency arbitration times (UATs), which are the idle time intervals required before the random backoff counter is decreased. Also, packets may be reclassified in real time with a scheduling algorithm that adjusts the class assigned to packets based on observed performance parameters and according to negotiated QoS-based requirements.

Regarding claims 1, 10, 16, 21 and 22, Applicant submits that Benveniste does not disclose or suggest the limitations in the combination of each of these claims. For example, the Examiner asserts that Benveniste discloses a priority preemption module in figure 3 items 214A-214C. However, these items are merely data sources that supply data packets of specific QoS priorities. This is not a priority preemption module configured to modify transmission sequence of the packets in accordance with the priority of packets determined by the dynamic back-off access module, as recited in the claims of the present application.

The Examiner further asserts that Benveniste discloses a preemption module configured to modify the transmission sequence, in paragraphs 0122, 0164 and 0204. However, these portions merely disclose that transmission of different types of traffic is scheduled based on their service quality specifications, that the urgency class of pending packets to a wireless station can be determined according to a scheduling algorithm, that the backoff countdown process of

lower-priority frames in congestion conditions is retarded thus allowing higher priority frames access to the channel even though it may have a longer backoff delay, and that several classes with priority above that of legacy stations can be obtained by differentiation through other parameters. These portions do not disclose or suggest a priority preemption module configured to modify the transmission sequence for the packets in accordance with the priority of packets determined by the dynamic back-off access module, as recited in the claims of the present application.

Moreover, the Examiner assert that Benveniste discloses the buffer comprising a first buffer module and a second buffer module, at figure 3 items 311 and 309, respectively, and paragraphs 0130-0132. However, this assertion by the Examiner is in conflict with the Examiners previous assertions where he states that figure 3 item 316 in Benveniste discloses Applicants claimed buffer, but now asserts that Q309 and Q311 are a part of the output buffer 316 in Benveniste. Clearly, as shown in figure 3, Q309 and Q311 are separate and distinct entities from the output buffer 316. Further, Benveniste discloses the first Q309 storing less urgent data having a lower QoS priority such as file transfer data, and the second Q311 storing more urgent data having a higher QoS priority such as voice and video data. This is not a buffer including a first buffer module configured to store and manage data packets received prior to a back-off process of the dynamic back-off access module, and a second buffer module configured to store and manage the preempted lower priority packet waiting to be transmitted

after the transmission of the higher priority packet, as recited in the claims of the present application

Moreover, the Examiner asserts that Benveniste discloses suspending a transmission of data packets being transmitted if higher priority packets are inputted, at paragraph 76. However, this merely discloses that in congestion conditions, priority differentiation between UAT offers not only prioritized access to packets waiting for transmission, but also freezing of the back-off countdown process of lower priority packets. This is not suspending a transmission of data packets being transmitted if higher priority packets are inputted and enabling the higher priority packets to preempt lower priority data packets in the transmission sequence, as recited in the claims of the present application. The Examiner appears to use impermissible hindsight in reading the limitations of the claims of the present application back into the cited reference for example stating that freezing of the back-off countdown process "means suspending a transmission of data packets being transmitted".

The Examiner further asserts that Benveniste discloses where old data is stored in a first buffer prior to transmission and wherein the preempted data packets are stored in a second buffer, by the Q309 and second Q311. However, as noted previously Q309 merely stores less urgent data and Q311 contains more urgent data. This is not all the data packets being stored in a first buffer prior to transmission, and the preempted data packets being stored in a second buffer, as recited in the claims of the present application.

In addition, the Examiner asserts that Benveniste discloses a transmitter configured to transmit the packet of a second priority before transmitting the preempted packet, in paragraphs 0130-0132, and figure 3 item 316. However, this is not a transmitter configured to suspend the transmission of the preempted packet and transmit the packet of the second priority, as recited in the claims of the present application. Benveniste does not disclose or suggest the suspension of transmission of packets when packets are inputted of a second priority and transmitting the packet of the second priority first and then the preempted packet. Further, Benveniste does not disclose or suggest means for suspending the transmission of data packets being transmitted if higher priority packets are inputted or preempting packets of first priority with packets of a second priority when packets of the second priority are detected. [The cited portions of Benveniste do not disclose or suggest these limitations in the claims of the present application.

Regarding claims 2-9, 11-15, 17-20, 23 and 24, Applicant submits that these claims are dependent on one of independent claims 1, 10, 16 and 22 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims.

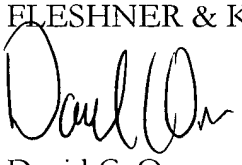
Accordingly, Applicant submits that Benveniste does not disclose or suggest the limitations in the combination of each of claims 1-24 of the present application. Applicant respectfully request that these rejections be withdrawn and that these claims be allowed.

CONCLUSION

In view of the foregoing Amendment and remarks, Applicant submits that claims 1-8, 10-13 and 15-24 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Frederick D. Bailey, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



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